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SURVEY OF INSTITUTIONAL USERS OF FISH IN CUYAHOGA AND SUMMIT COUNTIES, OHIO

Cyril M. Logar

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INSTITUTE FOR



ENTURY BUSINESS

CENTER FOR BUSINESS AND ECONOMIC RESEARCH

COLLEGE OF BUSINESS ADMINISTRATION

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Cyril M. Logar
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FOREWORD

Research is being conducted under a Sea Grant project at Kent State University to examine the marketing and physical distribution of fish and fish products into the Midwest.*

This study reports the results of a survey made of institutional users of fish in Cuyahoga and Summit counties, Ohio, and is one of four monographs dealing with members of the distribution channel. Two others, one dealing with retailers and the other with wholesalers, were published in January and May, 1973, respectively. The fourth will deal with consumers.

Throughout the entire research project, emphasis has been on the marketing of fresh fish as a menu item. To understand the marketing and physical distribution of fresh fish, it has been necessary to obtain information in regard to frozen and canned fish as well.

These studies should prove to be useful to members of the fishing industry, students of marketing, and other members of the marketing channels, since they are studies that treat fish as a menu item and are not limited to a particular specie but deal with fish from the point of view of the household consumer and of suppliers of these products to the home.

*NOAA 2-35364, Application of Computer Technology and Advanced Physical Distribution Techniques to Seafood Marketing.

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SURVEY OF INSTITUTIONAL USERS OF FISH
IN CUYAHOGA AND SUMMIT COUNTIES, OHIO

CHAPTER I

PURPOSE, ORGANIZATION, AND SUMMARY OF CONCLUSIONS

Purpose and Scope of the Study

In the Fall of 1970, Kent State University received a grant from the National Science Foundation to analyze the market for fish in the Midwest and to analyze the channels of distribution for fresh fish. Later, such activities were transferred from the foundation to the Sea Grant Office, National Oceanic and Atmospheric Administration, United States Department of Commerce. As a part of this, an exploratory survey of retailers and wholesalers in a two county area was conducted from April, 1971, to August, 1971. A similar survey of institutional buyers (restaurants, caterers, schools, and hospitals) in a two-county area was conducted from February, 1973, to April, 1973, completing the study of area middlemen. The institutional survey data are summarized in this paper.

Description and Classification of Institutional Buyers

For the purpose of analysis, the institutional components in the sample were grouped into five categories: chain and franchise restaurants, independent restaurants, schools, hospitals, and caterers. Two other attempts were made to classify

the five institutional components. First, the institutions were grouped into their five categories based on the two counties surveyed. However, because there are more institutions proportionately in Cuyahoga county than in Summit county, a division in this manner might be misleading. Second, an attempt was made to group the institutions by their dollar volume of sales per month. However, due to the reluctance and/or the lack of knowledge on the part of the respondents, information on the dollar volume of sales of 30 per cent of the institutions was not received.

Of the questionnaires received, all indicated they purchased fish and fish products. Eighty-eight of the 91 questionnaires received of the sample taken from Summit county and Cuyahoga county were usable. Of the 88, 29 were schools, and eight were hospitals.

Initially it was hypothesized that the buying patterns of chain and franchise restaurants and independent restaurants would be similar, and that schools, hospitals, and caterers would be similar. After an analysis of the results, the buying patterns were found to be different. Chains and franchise restaurants and schools appeared to have similar buying characteristics while independent restaurants and hospitals were different from both of the groups above and were therefore categorized by themselves. Based on these preliminary findings, the data on the chain and franchise restaurants will be

analyzed first, followed by the analysis of the data on the schools, the data on the independent restaurants, the data on the hospitals, and finally, the data obtained from the caterers. For simplicity, chain and franchise restaurants will be referred to as chain restaurants.

Methodology

The institutional components of the marketing channels included in this survey may be characterized as mass feeding outlets. The quota method was used for drawing a sample from the components.

Three hundred twenty-five questionnaires were mailed to gather the data from the institutional buyers selected for the sample. An initial list of the institutional components were obtained from the yellow pages of the 1972 Akron and Vicinity Telephone Directory (Summit County, Ohio), as well as the 1972 Cleveland Metropolitan Area Telephone Directory (Cuyahoga County, Ohio). It was assumed that all the institutional components in Summit and Cuyahoga counties had telephones and their names were listed in the yellow pages.

The questionnaire was pretested in December, 1972, in Portage county, Ohio. After minor revisions of the questionnaire, the first mailing to the institutional components in Summit and Cuyahoga counties was completed in February, 1973. Included in the mailing was a questionnaire (Appendix), a cover letter to explain the purpose of the survey, and an addressed, stamped return envelope. Three weeks from the date

of the initial mailing, a telephone follow-up was conducted; a second mailing followed the telephone calls. A total of 91 responses were received, 88 of which were usable.

Summary of Conclusions

As a result of the analysis of the data collected and an interpretation of such results, certain conclusions were drawn and are presented below. More details are presented in Chapters II through VII of this monograph.

It was found that there was a strong relationship between the purchasing patterns of chain restaurants and schools, and between those of independent restaurants and hospitals. Frozen prepared finfish was the form most widely handled by chain restaurants and schools based on the totals purchased per month. When analyzing independent restaurants and hospitals as a group, the total number of pounds and forms of fish handled by these institutions were dispersed over the various forms of fresh and frozen fish. The purchases of fresh and frozen fish by caterers were similar to those of independent restaurants.

The proportion of total meals served by the chain restaurants, schools, hospitals, and caterers that included fish and fish products was less than that of the independent restaurants. The greater individuality of each independent restaurant in contrast to the other institutions is a possible reason for the difference that exists.

The subject of markup was also considered in this survey. Obtaining data on the five major forms of fish, fresh finfish,

fresh shellfish, frozen finfish, frozen shellfish, and canned fish, was difficult. The data were few and varied, therefore making it difficult to arrive at conclusions as to the possibility of patterns of significance. For example, for chain restaurants and independent restaurants, the markup based on the form of fish varied from an extreme of less than a 20 per cent to more than a 100 per cent markup. In the third situation, caterers, the markup was either between 21 per cent and 40 per cent, between 80 per cent and 100 per cent, or greater than 120 per cent. The schools and hospitals were not asked to respond to this question.

A variety of sources located both in and out of the state of Ohio were used by the five categories of institutional buyers to obtain fresh, frozen, and canned fish. The majority of the fish purchased on a per month basis by chain restaurants and caterers was purchased in states other than Ohio, such as Massachusetts, Michigan, and Pennsylvania. The three remaining categories of institutional buyers purchased the majority of their fresh, frozen, and canned fish in Ohio, with one exception: schools purchased the majority of their canned fish from other states.

When asked how orders for fresh, frozen, and canned fish were placed, the majority of the institutional buyers either had suppliers call on them or they called the suppliers. Schools and hospitals used standing orders to a greater extent than did the other institutional buyers. Sources used other than those

listed in the questionnaire were special distributors and hospital associations.

Another area analyzed was the frequency with which orders were placed by the institutional buyers ordering fish and fish products. It was found that orders placed for fish ranged from once a day to once a year, depending on the form and type of fish. The differences in frequency between the purchases of fresh fish and of frozen fish were slight. There was, however, a greater frequency of fresh fish being purchased once a day than that of frozen fish, although frozen fish was purchased by some on a daily basis.

With the exception of seven responses by the independent restaurants, the major method by which orders were delivered was the truck. In those seven cases where trucks were not used, air freight was employed to deliver two specific forms of fresh fish, fresh whole finfish and fresh whole shellfish. In all instances where air freight was used, the sources of supply were not located in the state of Ohio.

Another finding concerned the time that elapses between the placement of an order by the institutional buyers and the receipt of that order. Only three of 87 responses indicated the possibility of purchasing more fish if suppliers could shorten delivery time. From these results, it might be concluded that the time it takes to receive an order was adequate and acceptable to those purchasing fish and fish products, and that a

reduction of the delivery time would, therefore, not increase the amount of fish being purchased.

Institutional buyers' fish sales over the past five years had either increased or remained unchanged. For example, 88, or 44 per cent, of the 200 responses indicated the number of meals of fish had increased; 90, or 45 per cent, said that the number of meals had not changed; and only 22, or 11 per cent, said that there had been a decrease in meals of fish. Of the 22 that stated meals of fish decreased, eight indicated a decrease in meals of fresh fish. When analyzing the reasons for increases or decreases in the meals of fish, it appeared that the decision for the changes not only rested with the demand for fish, but also with the institutional buyers' willingness to purchase the fish and by the availability of the fish from their suppliers. For example, reasons for the increases or decreases in the meals of fish in the past five years were attributed to changes in consumer demand for fish, changes in the quality and prices of fish, and the availability of fish to the institutional buyers. Reasons given for decreases in meals of fish did not include the Pope's relaxation of the dietary requirements for Catholics, nor did it include the consumers' fear of pollution.

Institutional buyers were faced with many problems when handling and purchasing fresh, frozen, and canned fish. The one problem cited most frequently by the institutional buyers when handling fish was spoilage. The independent restaurants appeared to be more sensitive to the problems of handling fresh

and frozen fish than were the other four categories of institutional buyers. One possible reason for this was that the independent restaurants were not serving consumers who had little or no choice of menus.

Another area of analysis was concerned with the institutional buyers' views on preferences for fresh or frozen fish. Only the chain restaurants, independent restaurants, and the caterers were asked to respond to this question. The results were that 48, or 80 per cent, of the responses indicated a preference for frozen fish, and 12, or 20 per cent, indicated a preference for fresh fish. The independent restaurants represented ten of the 12 respondents who preferred fresh fish.

When asked why fresh fish was preferred, the institutional buyers stated the following reasons: first, customers preferred fresh fish over frozen fish; second, fresh fish was easy to handle and store and did not require thawing; third, fresh fish had a superior taste to that of frozen fish; and finally, the superior texture and quality of fresh fish made it an attractive menu item.

Frozen fish was preferred for the following reasons: first, and most frequently cited, was the fact that frozen fish was much easier to store than fresh fish; second, the problem of spoilage of frozen fish had almost been eliminated, therefore making it more attractive to many institutional buyers than fresh fish; third, frozen fish was easier to handle and prepare than fresh fish; and finally, frozen fish was more economical than fresh fish; that is, in many cases

frozen fish was cheaper to purchase and also cheaper to handle because of uniformity of portions served to patrons.

It should be noted that many of the reasons for preferring fresh or frozen fish related back to the problems institutional buyers encountered when handling and purchasing fish. Therefore, if these attitudes of the institutional buyers toward fresh and frozen fish are to change, solutions to the problems cited in Chapters VI and VII must be developed.

Institutional buyers were asked to provide suggestions to improve the market for fresh and frozen fish. Several suggestions were offered; however, the suggestions most frequently mentioned were to increase the availability of fresh and frozen fish to potential buyers and to reduce the price of fresh and frozen fish. These two suggestions for improving the market for fish were also the most frequent problem areas cited by the institutional buyers when purchasing fresh, frozen, and canned fish.

The final area of analysis described the methods of promotion used by the institutional buyers to help stimulate sales. The results indicated: first, that many institutional buyers did not consider their sales activity as promotional in nature; therefore, they did not promote; second, even though sales promotional tools were readily available to all businesses, more institutional buyers selected the menu as the method of promoting fish; and finally, the institutional buyers in the survey were randomly selected from the yellow pages of the

telephone directory, yet none of the respondents recognized this as a method of promotion.

Organization of the Presentation

Chapter II describes the form of fish and the total pounds of fish purchased by the five categories of institutions.

Chapter III presents a description of the percentage of total meals served that include fish, and the markup that is applied by the institutional buyers on the fish they serve.

Chapter IV analyzes the sources of supply, how orders are placed, the frequency of ordering, method of transportation, and delivery time of orders placed.

Chapter V describes the trends in institutional fish sales.

Chapter VI presents the problems encountered by the institution in handling and purchasing fish, and describes views on preferences for fresh or frozen fish by the institutions.

Chapter VII describes institutional buyers' suggestions to improve the sale of fresh and frozen fish, and the promotional practices of the institutional buyers.

CHAPTER II
FORM OF FISH AND TOTAL POUNDS OF FISH
PURCHASED BY THE INSTITUTIONS

Definitions

The different forms of fish were carefully defined and categorized on the questionnaire itself to reduce the likelihood of variances in the responses of the institutions arising from using identical terms in different context. Finfish were identified as cod, halibut, perch, and similar species, whereas shellfish encompassed such varieties as clams, crabs, lobsters, oysters, shrimp, and scallops.

Fresh fin and shellfish are fish that may have been iced but not frozen. Frozen fish are fish that have been preserved by deep freezing. Processed finfish have been headed, cleaned, and filleted, while processed shellfish have been deveined or shelled.

Prepared fish are fin or shellfish that have been processed as well as cooked and/or battered. Fish sticks, breaded shrimp, and deep fried crab cakes are examples of prepared fish.

Canned fish includes all forms of fin and shellfish preserved in canned form. Canned salmon, tuna, mackerel, oysters, and pickled herring are typical forms of canned fish.

Forms of Fish Handled by the Institutional Components

Data concerning the forms of fish handled by the insti-

tutional components are presented in Table 1. These data show that all five categories of institutional components handled

Table 1

Type of Fish Purchased by the Institutional Buyers

Institutions	Number of Responses		
	Fresh	Frozen	Canned
Chain Restaurants	1	23	2
Schools	2	28	16
Independent Restaurants	22	29	18
Hospitals	3	7	6
Caterers	4	9	8

Source: Survey data.

fresh, frozen, and canned fish and fish products. The total number of responses in each category does not equal the total number of respondents (88), because the respondent could select more than one answer. When analyzing the category consisting of chain restaurants, it was found that one questionnaire represented 13 franchised establishments.

Of the 26 chain restaurant respondents, one indicated using fresh fish; 23, frozen fish; and two, canned fish. Of the 46 responses representing schools, two indicated purchasing fresh fish; 28, frozen fish; and 16, canned fish.

Twenty-two independent restaurants purchased fresh fish; 29, frozen fish; and 18, canned fish. Of the respondents representing hospitals, three purchased fresh fish; seven, frozen fish; and six, canned fish. Four caterers indicated purchasing fresh fish; nine purchased frozen fish; and eight purchased canned fish.

Table 2 breaks down these totals according to the specific type of fish. Of the one chain restaurant that handled fresh fish, the specific form used was prepared finfish. Five of the 23 that used frozen fish indicated they purchased it in the form of processed finfish; 16 purchased prepared finfish; one, whole shellfish; and two, processed shellfish. Two of the schools indicated they purchased fresh prepared finfish and one purchased fresh processed shellfish. When asked to respond as to the type of frozen fish, three of the 28 schools indicated processed finfish; 23, prepared finfish; one, processed shellfish; and three, prepared shellfish. When asked the same question, 12 of the 22 independent restaurants handling fresh fish indicated they used whole finfish; 17 used processed finfish; eight used prepared finfish; ten used whole shellfish; nine used processed shellfish; and five used prepared shellfish. Of the 29 independent restaurants indicating that they purchased frozen fish, ten indicated buying whole finfish; 12, processed shellfish; and 11, prepared shellfish. Of the three hospitals that handled fresh fish, three purchased processed finfish; two indicated prepared finfish; and one, processed

Table 2
Forms of Fish Purchased by the Institutional Buyers

Forms of Fish	Number of Responses				
	Chain Restaurants	Schools	Independent Restaurants	Hospitals	Caterers
<u>Fresh</u>					
whole finfish			12		2
processed finfish			17	3	2
prepared finfish	1	2	8	2	1
whole shellfish			10		3
processed shellfish		1	9	1	2
prepared shellfish			5		
<u>Frozen</u>					
whole finfish			10	1	2
processed finfish	5	3	12	6	4
prepared finfish	16	23	8	5	7
whole shellfish	1		5	1	2
processed shellfish	2	1	12	3	4
prepared shellfish		3	11	1	1
<u>Canned</u>	1	13	11	7	9

Source: Survey data.

shellfish. When asked about their purchases of frozen fish, one of the seven hospitals that responded used whole finfish; six used processed finfish; five used prepared finfish; one used whole shellfish; three used processed shellfish; and one used prepared shellfish. Of the four caterers that indicated handling fresh fish, two purchased whole finfish; two, processed finfish; one, prepared finfish; three, whole shellfish; and two, processed shellfish. Nine caterers purchased various forms of frozen fish. Two caterers indicated purchasing frozen whole finfish; four purchased processed finfish; seven, prepared finfish; two, whole shellfish; four, processed shellfish; and one, prepared shellfish.

Not only is the form of fish purchased important, but the amount of each form purchased must be known in order to give a better idea of their comparative importance. Therefore, also incorporated into this section is an approximation of the total pounds of each form of fish purchased. For example, if one were to compare the ten independent restaurants that handled whole shellfish to the nine that handle processed shellfish, one might feel that their position in regard to sales is nearly equal. When the total poundage of whole shellfish is compared to processed shellfish, the difference becomes apparent since the ten independent restaurants that purchased whole shellfish had a total average of approximately 6,600 pounds per month, while the nine purchasing processed shellfish only purchased a total average of 600 pounds per month.

Total Pounds of Fish Purchased by Form by Institutional Buyers

Data concerning the total pounds of fish handled by the institutional buyers are presented in Table 3. It indicates the form of fish and the total average monthly pounds of a specific form of fresh, frozen, and canned fish that was purchased.

A total of approximately 16,200 pounds of fish per month was purchased by the chain restaurants. When analyzing whether the total pounds were in fresh, frozen, or canned form, only 100 pounds of prepared fresh finfish were purchased per month, and only 100 pounds of canned fish were purchased per month. Of the remaining 16,000 pounds of frozen fish that were purchased per month, 1,400 pounds were in the form of processed finfish; 13,900 pounds were prepared finfish; 500 pounds were whole shellfish; and 200 pounds were processed shellfish. The schools purchased a total of 32,550 pounds of fish per month on the average. Of the schools that indicated purchasing fresh fish, 1,150 pounds of fresh fish were purchased. Nine hundred fifty of the 1,150 pounds were prepared finfish and 200 pounds were processed shellfish. There was a total of 28,600 pounds of frozen fish purchased by the schools. Four thousand seven hundred fifty of the 28,600 pounds were in the form of processed frozen finfish; 21,750 pounds were prepared finfish; 1,000 pounds were processed shellfish; and 1,100 pounds were prepared shellfish. The 16 schools that indicated purchasing canned fish purchased an average of 2,800 pounds per month.

Table 3
Total Pounds of Specific Forms of Fish
Purchased by the Institutional Buyers

Forms of Fish	Average Total		Pounds Purchased Per Month		
	Chain Restaurants	Schools	Independent Restaurants	Hospitals	Caterers
<u>Fresh</u> whole finfish processed finfish prepared finfish whole shellfish processed shellfish prepared shellfish			3,000		300
			4,200	1,200	700
	100	950	1,000	1,000	100
			6,600		300
		200	600		700
			600		
<u>Frozen</u> whole finfish processed finfish prepared finfish whole shellfish processed shellfish prepared shellfish			2,800	300	1,300
	1,400	4,750	1,900	1,300	6,300
	13,900	21,750	1,800	1,200	3,900
	500		1,200	200	1,100
	200	1,000	4,300	300	5,200
		1,100	1,300	100	500
Canned	100	2,800	300	500	2,600
Total Pounds	16,200	32,550	29,600	6,100	23,000

Source: Survey data.

The independent restaurants had somewhat different fish purchasing patterns than did the schools and chain restaurants. The independent restaurants purchased a total of 29,600 pounds of fish per month, 16,000 pounds of which were fresh. Three thousand pounds of the fresh fish purchased were whole finfish; 4,200 pounds were processed finfish; 1,000 pounds were prepared finfish; 6,600 pounds were whole shellfish; 600 pounds were processed shellfish; and 600 pounds were prepared shellfish. A total of 13,300 pounds of frozen fish were purchased by independent restaurants per month. Whole finfish represented 2,800 of the 13,300 pound total; processed finfish represented 1,900 pounds; prepared finfish, 1,800 pounds; whole shellfish, 1,200 pounds; processed shellfish, 4,300 pounds; and prepared shellfish represented 1,300 pounds of that total. A total of 300 pounds of canned fish were purchased by independent restaurants.

The hospitals that responded to the question purchased an average total of 6,100 pounds of fish per month. Twenty-two hundred pounds represented the amount of fresh fish purchased, 1,200 pounds of which were processed finfish, and 1,000 pounds were prepared finfish. A total of 3,400 pounds of frozen fish were purchased per month by the hospitals. Three hundred pounds represented whole finfish; 1,300 pounds, processed finfish; 1,200 pounds, prepared finfish; 200 pounds, whole shellfish; 300 pounds, processed shellfish; and 100 pounds, prepared shellfish. A total of 500 pounds represented the average monthly purchases of canned fish by hospitals.

The final institutional component survey was caterers. The caterers purchased a total of 23,000 pounds of fish per month, 2,100 pounds of which were fresh fish; 18,300 pounds, frozen fish; and 2,600 pounds, canned fish. Of the 2,100 pounds of fresh fish, 300 pounds were whole finfish; 700 pounds were processed finfish; 100 pounds were prepared finfish; 300 pounds were whole shellfish; and 700 pounds were processed shellfish. Whole frozen finfish represented 1,300 of the 18,300 pounds of frozen fish purchased by caterers per month; processed finfish represented 6,300 pounds of that total; prepared finfish, 3,900 pounds; whole shellfish, 1,100 pounds; processed shellfish, 5,200 pounds; and prepared shellfish, 500 pounds.

The data on the various forms and pounds of fish purchased by the five institutional buyers are presented in this manner for three reasons. First, in order to determine the form of fish coming into this area, it is necessary to divide the individual types of fish purchased into their specific forms. Second, the total number of pounds of fresh, frozen, and canned fish that were purchased on an average monthly basis by the respective institutions were presented in order to show the relationship between the most popular type and form of fish being purchased in the area and the average total pounds purchased per month. Third, with these data, the hypothesis that chain restaurants and independent restaurants possess similar purchasing patterns may be rejected.

When comparing the above data to that obtained from the caterers, there exist similarities between the purchasing patterns of caterers and those of the independent restaurants and hospitals. The independent restaurants, hospitals, and caterers each tend to spread their total pounds of fish purchased over many different forms of fresh and frozen fish. For example, of the various forms of fresh fish purchased by the three components, fresh processed finfish appeared to be a popular choice. The independent restaurants did, however, purchase more in total pounds per month of whole fresh shellfish than of processed fresh finfish. The hospitals did not purchase any whole fresh shellfish, while the caterers purchased very little of that form as compared to the independent restaurants. Frozen processed finfish, frozen prepared finfish, and frozen processed shellfish were all popular forms of frozen fish handled by the independent restaurants, hospitals, and caterers. Of the three forms of frozen fish mentioned above, processed shellfish was favored more by the caterers and independent restaurants than by the hospitals.

A Comparative Analysis

In a study conducted in 1968 by Martin E. Hearn and Charlotte R. Menke entitled Seafood Marketing and Promotional

Program of the Florida Board of Conservation,¹ chain, franchised, and independent restaurants were interviewed. Many of the results in the Florida survey were very similar to those found in this study that was conducted in Summit and Cuyahoga counties, Ohio. Therefore, in this chapter and others, the Florida study will be referred to when applicable for comparison.

Table 4 presents a comparison of the results that were obtained in the Florida survey to those obtained in this survey of institutional buyers in Summit and Cuyahoga counties, Ohio. In the Florida study, 112 independent, chain and

Table 4

Percentage of Fresh and Frozen Fish Purchased in the Two Studies				
Institutional Buyers	Summit and Cuyahoga Counties, Ohio*		Florida Studies**	
	Fresh	Frozen	Fresh	Frozen
Chain Restaurants	4%	56%	11%	54%
Independent Restaurants	96%	44%	89%	46%
Total	100%	100%	100%	100%

*Source: Survey data of institutional buyers in Summit and Cuyahoga counties, Ohio.

**Source: Survey data of institutional buyers from the Florida study.

¹Martin E. Hearn and Charlotte R. Menke, Report on Seafood Marketing and Promotional Program of the Florida Board of Conservation. Gainesville, Florida: University of Florida, 1968, p. 40.

franchise restaurants were interviewed. Of the 112, 35, or 31 per cent, indicated the use of fresh fish and 77, or 69 per cent, used frozen fish. Thirty-one, or 89 per cent, of the 35 using fresh fish were independent restaurants and four, or 11 per cent, were chain restaurants. Comparatively, in this study, 23 restaurants purchased fresh fish; one, or four per cent, was a chain restaurant and 22, or 96 per cent, were independent restaurants. Of the 77 in the Florida study using frozen fish, 36, or 46 per cent, were independent restaurants and 41, or 54 per cent, were chain restaurants. This also was similar to the study conducted in Summit and Cuyahoga counties, Ohio. Of the 52 restaurants purchasing frozen fish, 23, or 44 per cent, were chain restaurants and 29, or 56 per cent, were independent restaurants.

It may be concluded, even though the sample of the study in Summit and Cuyahoga counties is smaller than that in the Florida study, that there were definite similarities in the purchase of fish. This was particularly true with independent restaurants and chain restaurants in their purchase of fresh and frozen fish. For example, a greater percentage of independent restaurants purchased fresh fish than did chain restaurants. Second, a greater percentage of chain restaurants purchased frozen fish than did independent restaurants.

Another area where similarities exist in the two surveys is in the form of fish handled. In the Florida study, 38, or 59 per cent, of the 64 chain and franchised restaurants

questioned indicated they purchased prepared fresh and frozen fish. Of the 148 independent restaurants interviewed, only 51, or 34 per cent, purchased prepared fresh and frozen fish. These results compare with the findings of the study in Summit and Cuyahoga counties. For example, of the 26 chain restaurant responses, 17, or 65 per cent, purchased prepared fresh and frozen fish. Again, it may be concluded that there does exist similarities between the responses of chain and franchise restaurants and independent restaurants in the two studies.

Summary

Recapitulating the findings, it appears that frozen prepared finfish is the form most widely handled by chain restaurants and by schools. When analyzing the independent restaurants and hospitals as a group, the total number of pounds and form of fish handled by these institutions was dispersed rather evenly over the various forms of fresh and frozen fish with few exceptions. These exceptions can be recognized in Tables 2 and 3. Finally, when comparing the results of this study to those of the Florida study, the responses of the chain, franchise, and independent restaurants were similar. Schools, hospitals, and caterers were not included in the Florida study; therefore, any further comparisons with the data in this section could not be carried out.

CHAPTER III

PERCENTAGE OF TOTAL MEALS THAT INCLUDE FISH AND PERCENTAGE MARKUP ON FISH

Chapter III is an analysis of the percentage of total meals that include fish that were served by the institution and an analysis of the markup placed on the five major forms of fish served.

Percentage of Total Meals Served Including Fish

The proportion of total meals served by the institutional components that included fish and fish products is presented in Table 5.

Table 5

Percentage of Total Meals Served that Include Fish

Percent- age of Total Meals	Number of Responses				
	Chain Restaurants	Schools	Independent Restaurants	Hospitals	Cater- ers
1- 10	5	11	7	1	5
11- 20	17	10	6	2	
21- 30		2	11*	1	2
31- 40			3		
41- 50			1		
51- 60			1		
61- 70	1				
71- 80			1		
81- 90		1			
91-100			1		

Source: Survey data.

* All 11 of the responses ranged from 25 per cent to 30 per cent.

Of the chain restaurants that responded to the question, five

attributed between one per cent and ten per cent of their meals to fish and fish products; 17 stated that fish accounted for between 11 per cent and 20 per cent; and one stated that 61 per cent to 70 per cent of the meals served included fish products. The schools that were interviewed again had results similar to those of the chain restaurants. Eleven per cent of the schools indicated between one per cent and ten per cent of the meals served included fish; ten stated meals including fish accounted for between 11 per cent and 20 per cent; two indicated between 21 per cent and 30 per cent of the meals included fish; and one school responded that 81 per cent to 90 per cent of the meals included fish and fish products.

Of the hospitals interviewed, one attributed between one per cent and ten per cent of the total meals to fish and fish products; two indicated between 11 per cent and 20 per cent of the meals were fish; one stated that 21 per cent to 30 per cent of the meals included fish; and one stated that between 31 per cent and 40 per cent of the meals included fish. Seven caterers responded to this question, of whom five indicated that only one per cent to ten per cent of the meals served included fish and fish products. The other two caterers indicated that between 21 per cent and 30 per cent of their total meals included fish.

The chain restaurants, schools, hospitals, and caterers are very similar in the percentage of total meals served that include fish and fish products. The major difference is with

the remaining category of institutional buyers--independent restaurants. A higher percentage of the total meals served by independent restaurants included fish and fish products. For example, seven independent restaurant respondents indicated between one per cent and ten per cent of their total meals served included fish and fish products; six stated between 11 per cent and 20 per cent were fish, 11 saw fish contributing to between 21 per cent and 30 per cent of their total meals served; three attributed between 31 per cent and 40 per cent of their meals to fish; and one each said between 41 per cent and 50 per cent; 51 per cent and 60 per cent; 71 per cent and 80 per cent; and 91 per cent and 100 per cent of their total meals served included fish and fish products.

These results are similar to those of the Florida study cited earlier. To quote the authors of the Florida study:

The greater individuality of independent restaurants contrasted to the chain and franchise restaurants is marked by the large proportion of seafood sales as a proportion of their total sales. For nearly 55 per cent of the independent restaurants, seafood accounted for more than one-fourth of their total sales and, for over 18 per cent of these establishments, seafood accounted for over 75 per cent of the total sales. For the 72 per cent of the chain and franchise restaurants, on the other hand, seafood accounted for 25 per cent or less of their sales.²

Again, the findings in this study of institutions are similar.

²Ibid., p. 42.

For nearly 57 per cent of the independent restaurants, fish and fish products accounted for more than one-fourth of their total meals served, and for 15 per cent of these establishments, fish accounted for 75 per cent or more of the total sales. On the other hand, for 95 per cent of the chain restaurants, fish and fish products accounted for 25 per cent or less of their sales.

Markup on Fish by the Institutional Buyers and Problems Relating to the Markup Data

Several problems were encountered in gathering markup percentage information. First, when the mail questionnaire was pretested, it was discovered that the respondents representing the schools and hospitals were unable to answer the question on markup because of a lack of knowledge. Therefore, this analysis deals only with those responses from chain restaurants, independent restaurants, and caterers. Second, several of the institutional components did not answer the question either because they did not know what their markup was on fresh, frozen, and/or canned fish, or because the information was considered confidential. Third, the questionnaire was mailed to the managers of the institutions, but in many cases they may not have had the knowledge of what the markup was on fresh, frozen, and/or canned fish. Finally, the markup figures that were provided may be based on either the cost of the fish or on the retail price of the fish.

Markup Analysis

The data in Table 6 present the responses that were received on the questions concerning the markup of fresh, frozen, and canned fish by the chain restaurants, independent restaurants, and caterers. Since it is not known whether or

Table 6

Markup on the Five Forms of Fish by the Institutional Buyers

Equivalent range of percentage mark-up on cost compared to retail		Number of Responses by Form of Fish														
Percent-age Mark-up on Cost	Percent-age Mark-up on Retail	Chain Restaurants*					Independent Restaurants					Caterers				
		A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
1- 20	1.0-16.7		2	2	1		1	3	3	5	4					
21- 40	17.3-28.6	1	1	2	1	1	6	2	4	5	4	2	2	4	3	4
41- 60	29.0-37.5			1	1		2	1	2	2	1					
61- 80	37.8-44.4						2		1							
81-100	44.7-50.0						4	3	2	4	1			1		1
101-120	50.2-54.5			16												
over 120	over 54.5						3	3	3	2	1	1		1	1	1

Source: Survey data.

* The letters represent the following forms of fish:

A - Fresh Finfish

B - Fresh Shellfish

C - Frozen Finfish

D - Frozen Shellfish

E - Canned Fish

not the markup figures that were provided were based on either cost or retail, Table 6 shows the markup of fish in terms of cost and its equivalent value in terms of retail for a percentage markup range.

Twenty-nine responses were received from chain restaurants. The 29 did not, however, represent 29 different establishments because each respondent could select more than one answer. It should also be noted that 13 of the 29 responses came from one franchise operation in Summit and Cuyahoga counties. The 29 responses on markup that were received from the chain restaurants varied from 2.5 per cent to 110 per cent markup. In presenting the results on markup, the responses were grouped into intervals of 20 per cent.

Of the 29 chain restaurant responses, five indicated a markup between one per cent and 20 per cent; six, between 21 per cent and 40 per cent; two, between 41 per cent and 60 per cent; and 16 indicated a markup of between 101 per cent and 120 per cent. Seventy-four responses ranging from five per cent to 300 per cent markup were received from independent restaurants. Sixteen of the 73 independent restaurants marked up their fish between one per cent and 20 per cent; 21 used between a 21 per cent and a 40 per cent markup; eight used between 41 per cent and 60 per cent; three between 61 per cent and 80 per cent; 14 between 81 per cent and 100 per cent; and 12 used a markup of more than 120 per cent.

Twenty-one responses ranging from 25 per cent to 450 per cent markup were received from caterers. Fifteen of those responses indicated a markup between 21 per cent and 40 per cent; two, a markup between 81 per cent and 100 per cent; and four, a markup of over 120 per cent. From these results, it

is difficult to arrive at any conclusions as to the possibility of patterns of significance. In all three cases, the markup based on the form of fish varied from one extreme to the other.

Summary

The proportion of total meals served by chain restaurants, schools, hospitals, and caterers that included fish and fish products was less than that of the independent restaurants. The greater individuality of the independent restaurants in contrast to the other institutions is a possible reason for the difference that exists. These results in comparison to the Florida study were almost identical when comparing the independent restaurants to the chain restaurants. Schools and hospitals were not included in the Florida study.

Also considered in Chapter III was the markup on the five major forms of fish. The results, as indicated earlier, were few and varied, making it difficult to arrive at a conclusion as to the possibility of patterns of significance. In two of the three cases, the markup based on the form of fish varied from an extreme of less than 20 per cent to more than 100 per cent markup. In the third situation, caterers, markup was either between 21 per cent and 40 per cent or between 80 per cent and 100 per cent, or was greater than 120 per cent.

CHAPTER IV
PROCEDURES EMPLOYED BY INSTITUTIONAL
BUYERS WHEN ORDERING FISH

Chapter IV is divided into three sections. The first section describes where the institutional buyers purchase fresh, frozen, and canned fish. The second section explains through whom the orders for fish are placed; and the third section analyzes the frequency with which orders are placed, the methods of transportation, and the delivery time after orders are placed.

Sources of Supply

The 88 institutional buyers in the study obtained fish from more than 50 different sources that are located not only in Summit and Cuyahoga counties, Ohio, but also as far east as Maine and New York, as far south as Florida, and west to Chicago. There was no pattern that could be established as to where the institutional buyers purchase their fresh, frozen, and canned fish. The distributors in the immediate area, however, were selected more frequently as sources of supply than those distributors not in the state of Ohio. For example, for the one chain restaurant that purchased fresh fish, the source of supply was the Euclid Fish Company, Cleveland, Ohio. Ten different sources of suppliers of frozen fish were indicated, four of which were not from the state of Ohio but from sources located in the states of Pennsylvania, Massachusetts,

and Michigan. However, the total pounds that these four supply by far surpassed that supplied by the six sources located in the state of Ohio. For example, of the 16,000 pounds of frozen fish that were purchased per month by the chain restaurants in the sample, 14,200 pounds were from sources not located in Ohio.

Some characteristics of the chain restaurants were also similar to those of the caterers. Of the total 2,100 pounds of fresh fish purchased by caterers, 1,200 pounds were supplied by two suppliers not located in the state of Ohio and 900 pounds were supplied by four sources located in Ohio. The caterers in the sample used 12 sources to purchase frozen fish. Six of the 12 sources were located in the state of Ohio and supplied only 3,100 of the total 18,300 pounds of frozen fish purchased per month. Likewise, as with chain restaurants, caterers purchased the majority of the fresh, frozen, and canned fish that they used from sources not located in Ohio.

The remaining three categories of institutional buyers did not follow this pattern. Independent restaurants purchased fresh fish from 13 different suppliers, five of which were from out of state. These five, however, accounted for only 4,300 of the total 16,000 pounds of fresh fish that were purchased per month on the average. Independent restaurants used 16 sources for frozen fish. Three of the 16 sources were not located in the state of Ohio and supplied only 2,900 of the total 13,300 pounds of frozen fish purchased per month.

Four sources, all of which were located in Ohio, were used by the schools to purchase fresh fish. Of the 14 sources of frozen fish, only one was not from Ohio and it contributed 2,000 of the 31,500 total pounds of fish purchased per month by the schools in the sample. Only two sources, both of which were located in Ohio, were used by hospitals to purchase fresh fish. On the other hand, there were eight sources of suppliers of frozen fish used, only one of which was not located in Ohio. It contributed 1,100 of the 3,400 pounds of frozen fish purchased per month.

Of the five categories of institutional buyers purchasing canned fish, only the schools went to sources located in a state other than Ohio to purchase the majority of their canned fish. The total pounds of canned fish purchased by schools accounted for 2,800 of the total 6,300 pounds of canned fish purchased by all five categories of institutional buyers per month. Caterers purchased 2,600 pounds of canned fish, 2,500 pounds of which came from sources located in Ohio.

It is difficult to ascertain why the chain restaurants and caterers purchased a majority of their fish from sources outside of Ohio as compared with the three other categories of institutional buyers who purchased the majority of their fish from sources in Ohio. One possible reason for the chain restaurants to buy in this manner may be that, since chain restaurants possess many outlets to which fish can be distributed, they can purchase larger quantities of fish and these

quantities can be obtained only from sources outside Ohio. These larger quantity purchases would then be distributed to the outlets, which would reduce the problem of storage that the other three categories of institutional buyers may have if they purchased in larger quantities. The fact that discounts may accompany the large quantity purchases should not be overlooked. A possible reason for caterers to behave in this manner may be that caterers supply a greater number of meals at one time than do independent restaurants, schools, and hospitals, and therefore generate a turnover that would enable them to purchase fish and fish products in larger quantities only from sources not located in Ohio. For example, caterers serve meals to individuals who are working in industrial plants, to students in schools, and to patients in hospitals. As with the chain restaurants, the salient point behind purchasing large quantities of fish may be the quantity discounts that may be received.

How Orders for Fish are Placed

Orders for food products may be placed in several ways: one, the supplier calls regularly; two, the buyer contacts the supplier; three, the buyer may have a standing order with the supplier; and four, chain warehouses may be the appropriate contact if a chain operation is involved. To determine whether there are differences between how orders are placed for fresh, frozen, and canned fish, the institutional buyers were asked to indicate which of the above or other procedures they employed.

Table 7 presents the results of how orders are placed by the institutions included in the study.

The majority of the orders placed by chain restaurants, schools, independent restaurants, hospitals, and caterers are either by suppliers calling on the institution or by the institution calling the supplier. These findings hold true for purchases of fresh, frozen, or canned fish. The schools deviate from these findings somewhat in that many of their orders are also standing orders.

The chain restaurants and the independent restaurants also indicated a source of supply other than those provided for in the questionnaire. The respondent representing a chain restaurant indicated that a special distributor was contacted. The three respondents representing the independent restaurants also indicated using special distributors for placing orders. Finally, the two responses from the hospitals indicated they placed their orders with the hospital association.

In summary, only two patterns of behavior were followed by all five categories of institutional buyers in placing orders for fresh, frozen, or canned fish. First, the institutions tended to favor either having suppliers call on them, or them calling suppliers. Second, the schools and hospitals employed, to a greater extent than either chain restaurants, independent restaurants, or caterers, the use of standing orders.

Table 7
 Procedure Used by the Institutional Buyers
 To Place Orders of Fresh, Frozen, and Canned Fish

Procedures Employed	Number of Responses														
	Chain Restaurants			Schools			Independent Restaurants			Hospitals			Caterers		
	Frz	Frz	Can	Frz	Frz	Can	Frz	Frz	Can	Frz	Frz	Can	Frz	Frz	Can
Supplier Calls	1	5	2		2	2	16	16	10	1		3		3	2
You Contact Supplier	2	4	2		22	14	10	8	7	2	4	2	5	7	5
Standing Order		1		1	9	4	7	1		3	1	2			
Chain Warehouse		1			1	1									1
Other		13*					1*	1*	1*	1**	1**				

Source: Survey data.
 * Special distribution.
 ** Hospital association.

Frequency of Placing Orders, Methods of Transporting Fish,
and the Effects of Delivery Time after Orders are Placed

Frequency of Placing Orders

The frequency of placing orders by the institutional components varied from once a day for a particular form and type of fish to once a year for another. The data in Table 8 present the frequency with which orders were placed by the individual institutional buyers for the particular form of fish purchased.

Certain points should be noted when analyzing the results in Table 8. First, it should be noted that independent restaurants, schools, and caterers that purchase fresh fish purchase it as few as two times per month or less. Schools and caterers may only serve fresh fish two times during a month; therefore, their purchase interval for fresh fish may seem reasonable. However, one can only speculate as to why some of the independent restaurants purchased fresh fish two times per month. It would seem that fresh fish, if used as a regular menu item, would be purchased more frequently to maintain the fresh fish.

Second, the facts that frozen fish may be stored over periods of time, and that the possibility of the institutions purchasing larger quantities and, therefore, receiving quantity discounts, when possible, may lead to the conclusion that the frequency of purchasing frozen fish would be less than that of fresh fish. This, however, may not necessarily be the

Table 8

Frequency of Placing Orders for Fresh, Frozen, and
Canned Fish by the Institutional Buyers

Frequency of Purchase	Number of Responses														
	Chain Restaurants			Schools			Independent Restaurants			Hospitals			Caterers		
	Frz	Frz	Can	Frz	Frz	Can	Frz	Frz	Can	Frz	Frz	Can	Frz	Frz	Can
1/day					1		10	4					4	1	
3/week		1					3								
2/week		5			1	1	7	11	2	1	3		2	9	4
1/week		5	1		1	17	23	23	4	5	9	4	6	7	3
12/month								1							
2/month	1	13					2	4						1	
1/month					1	3	5				2	2	1	2	1
2/year															
1/year						1						1			

Source: Survey data.

case. The frequency of purchases of fresh and frozen fish were similar with two exceptions. One, there were fewer respondents indicating purchases of frozen fish on a daily basis as compared to those who purchased fresh fish. For example, independent restaurants purchased more fresh fish on a daily basis than frozen fish. Two, in only seven cases were purchases of frozen fish placed one month apart or more. Five of these responses were from schools and hospitals where storage facilities may play an important role.

The frequency of purchasing canned fish varied from two times per week to once a year. The protection offered by canned items eliminates the problem of spoilage and, therefore, encourages the purchase of larger quantities at one time even though canned fish is used regularly as a menu item.

Methods of Transportation

In all but seven situations, as indicated in Table 9, institutional buyers used trucks to deliver their fresh, frozen, and canned fish and fish products. Air freight was used in seven cases where trucks were not employed. All of the seven cases were independent restaurant respondents purchasing either fresh whole finfish or fresh whole shellfish. As might be expected, where air freight was used, the sources of supply are outside the state of Ohio.

Table 9
Methods of Transportation by which Orders of
Fresh, Frozen, and Canned Fish are Received by Institutions

Type of Fish Handled	Number of Responses									
	Chain Restaurants		Schools		Independent Restaurants		Hospitals		Caterers	
	Truck	Air	Truck	Air	Truck	Air	Truck	Air	Truck	Air
<u>Fresh</u>										
Whole Finfish					10	2				
Processed Finfish					17		3			3
Prepared Finfish	1		3		8		2			1
Whole Shellfish					5	5				
Processed Shellfish			1		9		1			2
Prepared Shellfish					5					2
<u>Frozen</u>										
Whole Finfish										
Processed Finfish					10		1			2
Prepared Finfish	5		3		12		7			3
Whole Shellfish	16		23		8		5			6
Processed Shellfish	1				4					1
Prepared Shellfish	2		1		11		3			4
			3		11		1			1
<u>Canned</u>										
	1		13		11		8			9

Source: Survey data.

Delivery Time

Only three of 94 responses indicated the possibility of the purchase of more fish if there were a shorter delivery time from their supplier after an order had been placed. Of the three that felt the delivery time was a major factor that determined the amount of fish that would be used, one represented chain restaurants; one, independent restaurants; and one, schools. From these results, it might be concluded that the method of transportation and the time it takes to receive an order after it has been placed were adequate and acceptable to those purchasing fish and fish products.

Comparative Analysis

Many of the results in this chapter may be compared with the results indicated in a Survey of Wholesalers Handling Fish in Cuyahoga and Summit Counties, Ohio, by Leonard J. Konopa,³ which was conducted under the Sea Grant Project at Kent State University. In the wholesaler survey, when asked the methods of transportation employed to transport fish and fish products to institutions, all the wholesalers located in Summit and Cuyahoga counties, Ohio, indicated they used trucks.⁴ These

³Leonard J. Konopa, Survey of Wholesalers Handling Fish in Cuyahoga and Summit Counties, Ohio. Kent, Ohio: Institute for 21st Century Business, Kent State University, 1973.

⁴Ibid., p. 73.

results were consistent with the responses received from the institutions included in this survey.

The wholesalers were also asked the length of time it took to deliver fish and fish products to the institutional buyers after the order was placed. The results were that the delivery time ranges from four hours to 48 hours, with a modal figure of 24 hours.⁵ From these results, there seems to be no problem of institutions not receiving an order of fish within 24 hours after an order is placed with wholesalers located in Summit and Cuyahoga counties, Ohio. Therefore, if a 24 hour delivery time is adequate and acceptable to the institutional buyers, the amounts of fish and fish products they purchase would probably not increase if a shorter delivery time were possible.

Summary

A variety of sources located both in and out of the state of Ohio were used by the five categories of institutional buyers to obtain fresh, frozen, and canned fish and fish products. The majority of the fish purchased on a per month basis by chain restaurants and caterers was purchased in states other than Ohio. The three remaining categories of institutional buyers purchased the majority of their fresh, frozen, and canned fish within Ohio with one exception. Schools purchased the majority of their canned fish from other states.

⁵Ibid., p. 73.

When asked how orders for fresh, frozen, and canned fish were placed, the majority of the institutional buyers indicated either suppliers called on them or they called the suppliers. Schools and hospitals used standing orders to a greater extent than did the other institutional buyers. Sources that were used other than those listed in the questionnaire were special distributors and hospital associations.

The frequency with which orders were placed by the institutional buyers ordering fish and fish products ranged from once a day to once a year, depending on the form and type of fish. The differences in frequency between the purchases of fresh fish and those of frozen fish were slight. There was, however, a greater frequency of fresh fish being purchased once a day than of frozen fish; but frozen fish was still purchased by some on a daily basis.

With the exception of seven responses by the independent restaurants, the major method for delivering fish was the truck. In those seven cases where trucks were not used, air freight was employed to deliver two specific forms of fresh fish, fresh whole finfish and fresh whole shellfish.

The time that elapses between the placement of an order by the institutional buyer and the receipt of that order does not seem to hinder the amount of fish and fish products that are purchased. Finally, when comparing the results of this survey to the results in the study dealing with wholesalers

handling fish in Summit and Cuyahoga counties, the findings were almost identical for those institutional buyers who purchased fish from wholesalers located in these counties.

CHAPTER V
TRENDS IN INSTITUTIONAL BUYERS' FISH SALES
OVER THE PAST FIVE YEARS

Chapter V describes the trends in the institutional buyers' fish sales over the past five years as visualized by them, and provides some tentative explanation for these trends.

The respondents in the survey were asked to provide information on what has happened to their total sales of meals using fish; meals of fresh fish; meals of frozen fish; and meals of canned fish over the last five years. The respondents were asked to indicate whether the sales had increased, decreased, or remained unchanged, and why. Table 10 presents the number of respondents that indicated how the total meals of fish have changed. The total number of responses in each category does not equal the total number of respondents (88), because the respondents could select more than one answer or because some respondents did not answer the question. The total number of responses from the five categories of institutional buyers, therefore, totaled 200.

In general, the trend for total meals of fish, meals of fresh fish, meals of frozen fish, and meals of canned fish had either increased or had remained unchanged. Very few respondents indicated decreases in their meals of fish in the past five years. For example, of the 200 total responses to this question, 88, or 44 per cent, of the respondents indicated an increase in the meals of fish in the past five years; 90,

or 45 per cent, stated that the meals of fish remained unchanged; and 22, or 11 per cent, indicated that the meals of fish decreased.

Table 10
Trends in Institutional Buyers' Fish Sales
Over the Past Five Years (1968-1973)

Trends Over Five Years	Meals of Fish Served*																				
	Chain Restaurants				Schools				Independent Restaurants				Hospitals				Caterers				
	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	T
Increased	4	1	5	1	8	0	13	6	10	8	9	3	3	1	2	1	3	1	6	3	88
No Change	2	2	3	1	3	2	9	10	11	7	10	7	1	3	3	4	3	1	3	5	90
Decreased	0	0	1	0	1	1	3	3	1	2	0	2	1	2	0	1	1	3	0	0	22

Source: Survey data.

* The letters represent the types of meals of fish:

A - Total meals of fish C - Meals of frozen fish

B - Meals of fresh fish D - Meals of canned fish

T - Total

Of the 88 respondents indicating increases in total meals of fish, 28 showed increases in the total meals of fish: chain restaurants, four; schools, eight; independent restaurants, ten; hospitals, three; and caterers, three. Eleven of the 88 indicated increases in meals of fresh fish, eight of which were independent restaurants. Chain restaurants, hospitals, and caterers accounted for one each. The schools did not indicate any increases in the meals of fresh fish. Thirty-five of the 88 stated an increase in meals of frozen fish; five were chain restaurants; 13 were schools; nine were independent

restaurants; two were hospitals; and six were caterers. Finally, of the 88 indicating increases in meals of fish, 14 indicated increases in meals using canned fish, one of which was a chain restaurant. Six schools, three independent restaurants, one hospital, and three caterers also indicated increases in meals using canned fish.

The institutional buyers were asked to state why they felt the trend had increased in the past five years. The reasons given are not listed according to each of the five categories of institutional buyers because the responses were similar in each case. The reasons are, however, broken down according to type of fish and total meals of fish. The following reasons were given: first, there had been a general increase in the demand for fish by the consumer; second, there were many varieties of fish available to be purchased; third, people had become aware of fish as a valuable health food, particularly for those on diets; fourth, with the increase in prices of meats, the purchase of fish had increased; fifth, the quality of fish purchased today as compared to prior years had improved in taste because of better standardizing and grading processes; and sixth, in general, meals of fish were easy to prepare.

When analyzing the increase in the number of meals of fresh fish, the following reasons were presented: first, there had been an increase in the general demand for fresh fish by the consumer; second, there were many varieties of fresh fish available for purchase; third, fresh fish was of superior

quality and taste when compared with frozen and canned fish; fourth, one respondent indicated that fresh fish did not produce an unpleasant odor and was, therefore, purchased more often; and fifth, when the price of fresh fish was compared to that of beef, the respondents indicated it was cheaper to purchase fresh fish.

The following reasons were given by those who indicated increases in meals of frozen fish; first, there had been an increase in the general demand for frozen fish by the consumer; second, there were many varieties of frozen fish available for purchase; third, the increase in the quality of standardizing and grading frozen fish had made it more attractive to purchase; fourth, frozen fish were convenient in that they were easy to handle and store as compared to fresh fish; fifth, frozen fish was cheaper than fresh fish; and sixth, the availability of frozen fish was greater than that of fresh fish.

Fourteen institutional buyers indicated that meals of canned fish had increased over the past five years. The reasons following are the ones given for the increases: first, there had been an increase in the demand for meals of canned fish, such as tuna and salmon; second, there were a variety of ways that canned fish could be prepared, making them more attractive to buyers; and third, meals of canned fish had increased because of the increase in the price of other products.

As indicated earlier, 90 of the 200 responses to this question stated that, in the past five years, the total meals of fish, meals of fresh fish, meals of frozen fish, and meals of canned fish had remained unchanged. Of those 90, twenty indicated no changes in the total meals of fish: two were chain restaurants; three, schools; eleven, independent restaurants; one, a hospital; and three, caterers. Fifteen of the institutional buyers indicated no change in the number of meals of fresh fish. Of those 15, two were chain restaurants; two were schools; seven were independent restaurants; three were hospitals; and one was a caterer. For meals of frozen fish, 28 of the institutional buyers indicated no change in the past five years. Three of those 28 were chain restaurants; nine were schools; ten were independent restaurants; three were hospitals; and three were caterers. Finally, 27 respondents indicated that there was no change in the meals of canned fish in the past five years. Of those 27, one response was from a chain restaurant; ten, schools; seven, independent restaurants; four, hospitals; and five, caterers. No reasons were given by the institutional components as to why the number of meals of fish had not changed in the past five years.

Finally, only 22 of the 200 total responses indicated decreases in the meals using fish in some form. Four of the 22 respondents indicated decreases in the total meals of fish, with one school, independent restaurant, hospital, and caterer

being represented. Chain restaurants indicated no decreases in total meals of fish. Of the 22 indicating decreases, eight respondents stated that meals of fresh fish had decreased. One of those eight was a school; two, independent restaurants; two, hospitals; and three, caterers. Again, the chain restaurants did not indicate a decrease in meals of fresh fish. Only four respondents indicated that meals of frozen fish had decreased in the past five years. One of those four represented a chain restaurant and three were the schools. Finally, six representatives of the institutional buyers indicated decreases in meals of canned fish. Of those six, three were schools, two were independent restaurants, and one was a hospital. The chain restaurants and caterers did not believe meals of canned fish had decreased in the past five years.

After the institutional buyers had indicated a decreasing trend in meals of fish during the past five years, they were asked why. The reasons following were given for the decreasing trend in meals of fresh fish: first, the prices of fish had increased to such a degree that institutional buyers could not afford them, and the consumer was not willing to pay for them (schools, in particular, appeared to feel the effects of the price increases); second, the poor quality of some fresh fish was a definite problem that was reflected in decreases in such meals; and third, many respondents indicated the decrease in meals of fresh fish was caused by the short supply of fresh fish.

Those indicating a decrease in meals of frozen fish offered these reasons: first, the quality in terms of taste, standardization, and grading was poor; and second, frozen fish, like fresh fish, was in short supply and, therefore, could not be easily purchased. Those institutional buyers who indicated decreases in meals of canned fish stated as their reasons the increasing cost of canned fish, the poor quality of canned fish, and the short supply of canned fish.

A Comparative Analysis

In a survey conducted by the Morton Research Corporation in 1972, entitled The Seafood Market: An Economic, Marketing, and Financial Investigation, the future trends of the seafood industry were analyzed.⁶ In its findings, it was concluded that, "in recent years the per capita consumption of seafood rose despite price increases for fresh and frozen processed fish."⁷ The study indicated that, "if the consumer continues his demand for fish despite the current price rises, the limited supply of seafood will stagnate the growth of this business."⁸ It is further stated that the sales of seafood products in 1975 will increase to \$1.3 billion of the total food sales as compared to the 1970 sales of \$1.1 billion.⁹

⁶Morton Research Corporation, An Economic, Marketing, and Financial Investigation. (Unpublished report), September, 1972, p. 2.

⁷Ibid.

⁸Ibid.

⁹Ibid.

The most notable increases are, and will be, in the shellfish products and in canned tuna.

The results found by the Morton Research Corporation are very similar to those found in this study. In most situations, the institutional buyers have indicated a trend toward increased sales of fish primarily because of an increased demand by the consumer. A major reason given for decreases in meals of fish is also related to the increased demand which, in turn, caused a shortage of supply, particularly of shellfish and tuna.

Many of the results in this study can also be compared with the results obtained from the prior survey of wholesalers by Leonard J. Konopa previously cited. In that survey, the wholesalers were asked to indicate the trends in meals of fish in the past five years and to explain the reasons for these trends. In both cases, the results of the wholesaler survey were similar to the results of this survey. For example, the wholesalers saw both increases and decreases in the sales of fish, with the trend toward increased sales.¹⁰ When asked to explain these trends, the wholesalers replied with many of the same reasons as the institutional buyers.¹¹

Analysis and Summary

In general, it is difficult to develop specific conclusions as to whether or not meals using fresh, frozen, or canned

¹⁰Konopa, op. cit., p. 37.

¹¹Ibid., p. 42.

fish have increased, decreased, or remained unchanged when compared with each other. For example, more respondents indicated increases in meals of frozen fish when compared with meals of fresh and canned fish; but it was also true that more respondents indicated no change in the meals of frozen fish when compared with meals of fresh and canned fish. More respondents did, however, indicate decreases in meals of fresh fish when compared with meals of frozen and canned fish. These results, even though conclusions may be difficult to draw, did compare favorable with the results obtained in the wholesaler survey.

When analyzing the meals of fresh, frozen, and canned fish in a total perspective, some conclusions may be drawn. Eighty-eight, or 44 per cent, of the 200 responses indicated that meals of fish had increased in the past five years; 90 or 45 per cent, indicated that meals of fish had not changed; and only 22, or 11 per cent, indicated a decrease in the meals of fish. It could, therefore, be concluded that the attitudes of the institutional buyers participating in this survey indicate a general trend toward increasing meals using fish. The results of the wholesaler survey and the survey conducted by the Morton Research Corporation also provide for similar conclusions.

When analyzing the reasons for the increases or decreases in the meals of fish as indicated by the institutional buyers, it appears that the decision for the changes not only

rests with the demand of the ultimate consumer for fish, but also with the institutional buyers' willingness to purchase the fish and the availability of fish from suppliers. For example, reasons for the increases or decreases in meals of fish in the past five years were attributed to such factors as changes in consumer demand for fish, changes in the quality and prices of fish, and the availability of fish to the institutional buyer. Once again, those results which pertain specifically to the reasons for the trends are similar to those obtained in the wholesaler survey. Reasons given for decreases in meals of fish did not include the Pope's relaxation of the dietary requirements for Catholics nor the consumers' fear of pollution, both of which were major reasons given by the wholesalers as causes for the decrease.

CHAPTER VI
PROBLEMS ENCOUNTERED BY INSTITUTIONAL BUYERS
WHEN HANDLING AND PURCHASING FISH

Chapter VI is divided into three sections. The first section describes the problems encountered by the institutional buyers when handling fish; the second section analyzes and attempts to explain the problems encountered by the institutional buyers when purchasing fish; and the third section presents the institutional buyers' views on preferences for fresh or frozen fish

Problems Facing Institutional Buyers When Handling Fish

The number of institutional buyers that indicated they did or did not have problems when handling fish is presented in Table 11. The total number of responses in each of the

Table 11
Number of Institutional Buyers that Encounter
Problems when Handling Fresh or Frozen Fish

Re- sponse (Yes, No)	Type of Fish										T*
	Chain Restaurants		Schools		Independent Restaurants		Hospitals		Caterers		
	Frs	Frz	Frs	Frz	Frs	Frz	Frs	Frz	Frs	Frz	
Yes	0	2	1	1	5	4	0	0	3	0	16
No	2	21	7	17	14	0	2	7	3	8	81
Total	2	23	8	18	19	4	2	7	6	8	97

Source: Survey data.

* Total

five categories does not equal the total number of respondents (88), because the respondent could select more than one answer or did not answer the question. The total number of responses from the five categories totaled 97.

The respondents had the option of indicating whether or not they encountered any problems when handling fresh and/or frozen fish. After analyzing the data, it was found that most respondents stated that they did not have any problems when handling fish, with 81, or approximately 83 per cent, of the institutional buyers encountering no problems.

A total of 16 responses, or approximately 17 per cent of the 97 responses, indicated that institutional buyers encountered problems when handling fresh and/or frozen fish. Of those 16, two represented chain restaurants; two, schools; nine, independent restaurants; and three, caterers. Those who represented the hospitals in this survey did not indicate having problems when handling either fresh or frozen fish.

The analysis of the data can further be divided into those who encountered problems with fresh fish and those who encountered problems with frozen fish. Nine of the 16 institutional buyers handling fish specifically indicated having problems when handling fresh fish. Those nine responses include one school, five independent restaurants, and three caterers. None of the chain restaurants or hospitals indicated having problems when handling fresh fish.

The institutional buyers who responded as having problems were also asked the nature of the problems. These responses were: first, the institutional buyers indicated spoilage problems with fresh fish; second, some mentioned the high cost of direct labor in handling and preparing fresh fish; third, the odor that some fresh fish have was unpleasant; and fourth, some problems dealt with standardizing the weights of fresh fish. Of the various problems that are referred to above, spoilage was mentioned more than any other.

Seven institutional buyers indicated that they had encountered problems when handling frozen fish. Two of those seven were chain restaurants, one was a school, and four were independent restaurants. The caterers and hospitals did not indicate having problems when handling frozen fish. It should be noted that a greater number of independent restaurants mentioned that they had problems when handling either fresh or frozen fish than did the other institutional buyers.

In conclusion, the independent restaurants appeared to be more sensitive to the problems of handling fresh and frozen fish than the other four categories. One possible reason for this is that the independent restaurants do not have captive consumers, as do schools, hospitals, and caterers. It also appears that certain problems do exist in handling both fresh and frozen fish, but these do not affect the majority of the institutional buyers represented in the survey. Of the problems that do exist, spoilage was mentioned most frequently.

Eighty, or 56 per cent, of the 142 respondents indicated no problems when purchasing fish. Of these responses, 62, or 44 per cent, indicated that there were problems when purchasing fish. Nineteen had problems when purchasing fresh fish, 34 when purchasing frozen fish, and nine when purchasing canned fish. Fifteen of the 19 who encountered problems when purchasing fresh fish represented independent restaurants; three, caterers; and one, a hospital. Such results might be expected because these institutions purchase more fresh fish per month than do the other two categories.

Thirty-four institutional buyers indicated problems when purchasing frozen fish. Fourteen of those 34 responses were from chain restaurants; five were schools; thirteen, independent restaurants; one, a hospital; and one a caterer. Again, these results appeared to be reasonable because all five categories of institutional buyers purchased large quantities of frozen fish per month and, therefore, were all apt to encounter problems.

Finally, of the nine respondents who indicated having problems when purchasing canned fish, five were schools; three, hospitals; and one, a caterer. Here again, such results appeared to be reasonable because schools, hospitals, and caterers purchased the majority of the canned fish per month and, therefore, were more apt to encounter problems.

The institutional buyers who indicated problems were asked to state the nature of those problems. These

problems were: first, and most frequently mentioned, was the problem caused by the inadequate supply of fresh, frozen, and canned fish; the second problem concerned the high prices of fresh, frozen, and canned fish. With the increase in prices, it had become difficult for many institutional buyers to purchase many types and forms of fish.

Institutional Buyers' Views on Preferences
for Fresh or Frozen Fish

The first two sections of this Chapter described many of the problems institutional buyers encountered when handling and purchasing fresh, frozen, and canned fish. This section presents an analysis of the types of fish preferred, and also analyzes the data presented in Table 13.

Table 13
 Institutional Buyers' Views on Preferences
 for Fresh or Frozen Fish

Type of Fish	Institutional Buyers*			
	Chain Restaurants	Independent Restaurants	Caterers	Total
Fresh	2	10	0	12
Frozen	22	19	7	48
Total	24	29	7	60

Source: Survey data.

*Hospitals and schools were not asked to respond

Schools and hospitals were not asked to respond to this question because it was felt that the meals of fish they served were predetermined by persons other than those responding to the questionnaire. The total number of responses in the three categories does not equal the total number of respondents in those categories (51), because a respondent could select both fresh and frozen fish as being preferred. The total number of responses to the question was 60.

Forty-eight, or 80 per cent, of the 60 responses indicated a preference for frozen fish, and 12, or 20 per cent, indicated a preference for fresh fish. Of the 48 institutional buyers who mentioned a preference for frozen fish, 22 were chain restaurants, 19 were independent restaurants, and seven were caterers. The twelve institutional buyers who indicated a preference for fresh fish included two chain restaurants and ten independent restaurants.

By far, the independent restaurants indicated a greater preference for fresh fish than did the chain restaurants or the caterers. The greater individuality of the independent restaurants in contrast to the chain restaurants and caterers may account for this pattern of responses. A second possible reason for these results is that independent restaurants deal with consumers who have a choice in menu selection. In the three categories, however, frozen fish was preferred over fresh fish.

The institutional buyers who indicated a preference for fresh fish, frozen fish, or both, were asked to give their opinions as to why fresh or frozen fish was preferred. When asked why they preferred fresh fish, the institutional buyers gave these reasons: first, customers preferred fresh fish over frozen fish; second, fresh fish was easier to handle and store and did not require thawing; third, fresh fish had a superior taste when compared with frozen fish; and fourth, the superior texture and quality of fresh fish made it an attractive item.

When asked why they preferred frozen fish, the institutional buyers mentioned these reasons: first, and most frequently cited, was the fact that frozen fish was much easier to store than fresh fish; second, the problem of spoilage with frozen fish had almost been eliminated, thereby making frozen fish more attractive than fresh fish; third, frozen fish were easier to handle and prepare than were fresh fish; and fourth, frozen fish were more economical than fresh fish, being not only cheaper to purchase but also cheaper to handle because of the uniformity of portions served to patrons.

Many of the reasons for preferring fresh or frozen fish relate back to the first sections of this chapter where the problems of handling and purchasing fish were discussed. For example, many of the respondents indicated that frozen fish were preferred because spoilage was decreased. Similarly, when analyzing the problems faced by the institutional buyers

when handling fresh fish, the most frequent problem mentioned was spoilage..

A Comparative Analysis

The results presented in Chapter VI are not unique to this study. For example, many of the problems encountered by the institutional buyers when handling and purchasing fresh, frozen, and canned fish were similar to the problems encountered by the wholesalers in the survey by Leonard J. Konopa.¹² They were also similar to the problems cited in an article by Robert J. Gruber entitled "Problem Areas In Seafood Distribution."¹³

Similarities were also present when comparing the results of this study with those of the Florida study regarding the preference for fresh or frozen fish by institutional buyers.¹⁴ For example, in the Florida study, of the 35 institutional components that indicated a preference for fresh fish, 31 were independent restaurants and four were chain restaurants. Of the 77 institutional buyers who indicated a preference for frozen fish, 36 were independent restaurants and 41 were chain restaurants. The results obtained in this study were very similar. Twelve institutional buyers indicated preferences

¹²Konopa, op. cit., pp. 81-90.

¹³Robert J. Gruber, "Problem Areas In Seafood Distribution," in The Future of the Fishing Industry of the United States, edited by DeWitt Gilbert. Seattle: University of Washington, Publications in Fisheries, New Series, Vol. 4, 1968, p. 230.

¹⁴Hearn and Menke, op. cit., p. 40.

for fresh fish, ten of which were independent restaurants; two were chain restaurants. Of the 41 institutional buyers (only chain and independent restaurants were included) preferring frozen fish, 19 were independent restaurants and 22 were chain restaurants. It should be noted that the category represented by chain restaurants included the responses of both chain and franchised restaurants combined.

Summary

In this chapter, many of the problems facing the institutional buyers when handling and purchasing fresh, frozen, and canned fish were described. The independent restaurants appeared to be more sensitive to the problems of handling fresh and frozen fish than were the other four categories of institutional buyers. The one problem cited most frequently by the institutional buyers when handling fish was spoilage.

The second section analyzed the problems encountered by institutional buyers when purchasing fish. The two most frequently mentioned problems were the inadequate supply of fish and the high prices of fish.

The third section of this chapter was included for two reasons: first, to indicate the institutional buyers' views on preferences for fresh and/or frozen fish; and second, to show the relationship between the problems of handling and purchasing fish and their affect on the institutional buyers' preference for either fresh or frozen fish. This chapter

should provide the reader with an insight into many of the problems that confront the institutional buyers and the attitudes and opinions that may develop because of these problems. Therefore, if institutional buyers are to change their attitudes toward purchasing fresh and frozen fish, solutions must be developed for the problems cited in this chapter.

Finally, a comparative analysis was made to show similarities between the results obtained in this study and the results obtained in other studies regarding these same topics.

CHAPTER VII

METHODS UTILIZED AND SUGGESTED BY INSTITUTIONAL BUYERS TO IMPROVE MARKETING OF FRESH AND FROZEN FISH

Chapter VII is divided into two parts. The first part discusses how to improve the market for fresh and frozen fish as suggested by the institutional buyers. The second part analyzes the promotional strategies used by the institutional buyers.

Institutional Buyers' Suggestions to Improve the Market for Fresh and Frozen Fish

The institutional buyers' responses to the question, "What can be done to improve the market for fresh and frozen fish?" were categorized into six groups representing supply, advertising, display, processing, pricing, and other suggestions. The suggestions on how to improve the market for fresh fish are presented first, followed by those on how to improve the market for frozen fish.

Fresh Fish

Two suggestions were presented on how to improve the supply of fresh fish. First, and most frequently mentioned, was to increase the amount of fresh fish available to potential buyers. The inadequate supply of fish, fresh, frozen, or canned, was mentioned as a major problem encountered by the institutions when purchasing fish. Second, it was suggested that

the reliability of the suppliers was not good and, therefore, should be improved.

Three suggestions were mentioned to improve the advertising of fresh fish. First, it was suggested that the amount of advertising currently being utilized was inadequate and, therefore, should be increased. Second, advertisers of fresh fish should increase the use of newspapers and magazines. Finally, the advertising that was currently being done was poor and its quality should be improved.

The third category, display, had one suggestion mentioned to improve the market for fresh fish. The respondents suggested that the number of displays should be increased, particularly within chain and independent restaurants.

One suggestion regarding processing was offered by the institutional buyers to improve the market for fresh fish. It was felt that improvements were needed to develop better techniques for standardizing and grading the portions of fresh fish.

The fifth category was pricing. It was suggested that the price of fresh fish should be lowered if the market for fresh fish was to improve. This suggestion was the most frequently mentioned of all the suggestions made in the six different categories.

Frozen Fish

Two suggestions were presented to improve the supply of frozen fish. First, and most frequently mentioned, was to

develop ways to increase the amount of frozen fish available to potential buyers. Second, the reliability of the suppliers was not good and, therefore, should be improved. A major criticism the institutional buyers had regarding suppliers was that they (the suppliers) did not take proper care in handling frozen fish from its point of departure to its destination. For example, many portions of frozen fish were either broken or had been partially thawed in transport.

Two suggestions were mentioned to improve advertising of frozen fish. First, it was suggested that the amount of advertising currently being utilized was inadequate and, therefore, should be increased. Second, the advertising that was being done was poor and should be improved.

One suggestion was mentioned to improve the market of frozen fish through the use of displays. It was suggested that pictures should be used to a greater extent.

Two suggestions were cited to improve the processing of frozen fish. First, it was suggested that better techniques be developed for standardizing and grading portions of frozen fish. Second, it was felt that the processors of frozen fish needed to improve the quality of the frozen fish that was being sold to the institutional buyers. For example, as indicated in a previous chapter, one of the problems with frozen fish was that the fillets had not been completely deboned.

The final category where suggestions were offered to improve the market for frozen fish was pricing. Here, as with

fresh fish, it was suggested that, if the sales of frozen fish were to increase, the prices would have to be lowered.

It is interesting to note that the largest number of responses in the six categories were found in the first category, supply, and in the fifth category, pricing. In each of these categories, the most frequently suggestions mentioned for improving the market for both fresh and frozen fish were to increase the availability of fresh and frozen fish, and to lower the prices of fresh and frozen fish.

Promotional Methods Utilized by Institutional Buyers

Several methods of promoting fresh, frozen, and canned fish were used by the institutional buyers. Because some of the institutional buyers employed several promotional techniques or because some of the institutional buyers did not answer the question, the total number of responses does not equal the total number of institutional buyers surveyed (51). Table 14 presents the various forms of promotion that are used by the chain restaurants, independent restaurants, and caterers by type of fish--fresh, frozen, and canned. The schools and hospitals were not asked to respond to the question because they normally do not provide a wide variety of meals nor do they promote the fact that they serve meals using fish.

Before describing the methods of promotion utilized by the institutions, it should be noted that several institutional buyers either did not think promotion was valuable, or did

not recognize that some of their sales activity was promotional in nature, since they reported they did not promote their fish and fish products.

Table 14

Means Reported by Institutional Buyers to Promote Sales

Promotional Means	Number of Times Mentioned by Type of Fish								
	Chain Restaurants			Independent Restaurants			Caterers		
	Frs	Frz	Can	Frs	Frz	Can	Frs	Frz	Can
None*	1	3	1				8	8	8
Menu		1		7	13	6			
Point of purchase		13							
Newspaper		2							
Word of mouth		1							
Window display		1							
Luminous sign		1							
Dinner special		1		2	2	2			
Media advertising		13							
Salesmen							2	2	2

Source: Survey data.

* None signifies no promotion was utilized.

The chain restaurants that responded employed a variety of methods to promote only the frozen fish. One chain restaurant respondent stated fresh fish was not promoted and one stated canned fish was not promoted. Three chain restaurant respondents indicated they did not promote frozen fish. Of the chain restaurants that promoted fish, only those handling frozen fish did so. One chain restaurant respondent stated the use of the menu as a method of promotion, 13 used point

of purchase materials (they are the 13 members of the franchise system included in the survey), 13 used media advertising (13 franchise restaurants), two used newspapers, and one each used word of mouth, window displays, luminous signs, and fish dinners as a speciality item.

The independent restaurants also used a variety of methods to promote fresh, frozen, and canned fish. Of those independent restaurants promoting fresh fish, seven indicated the menu as a promotional strategy, two used dinner specials, and one indicated word of mouth. Thirteen independent restaurants promoting frozen fish used the menu and two used dinner specials. Finally, of the independent restaurants that promoted canned fish, six used menus and two used dinner specials.

The caterers utilized fewer methods of promoting fresh, frozen, and canned fish than did the chain restaurants or the independent restaurants. Two caterers indicated using salesmen to promote frozen fish. Eight caterers, however, indicated that they did not utilize any methods of promotion for fresh, frozen, or canned fish.

Although sales promotional tools are readily available to all businesses, many did not engage in promotion. Of the institutional buyers who indicated promotional activities, the menu was the most frequent method used. It is interesting to note that even though the sample for this survey was randomly selected from the yellow pages of the telephone directories, not one institutional buyer who responded mentioned the yellow pages of the telephone directory as a method of stimulating sales.

Summary

Chapter VII presents an overview of what should be done to improve the market for fresh, frozen, and canned fish for institutional buyers. By far, the most frequent suggestions for improving the market for fish were also the most frequent problem areas cited by the institutional buyers when purchasing fresh, frozen, and canned fish.

Finally, this chapter described the methods of promotion that were used by the institutional buyers to help stimulate sales. The results indicated first, many institutional buyers do not consider their sales activity as promotional in nature; second, even though sales promotion tools were readily available to all businesses, more institutional buyers selected the menu as the method of promoting fish; and third, even though the institutional buyers in the survey were randomly selected from the yellow pages of the telephone directory, none of the institutions recognized it as a method of promotion.

APPENDIX

SCHOOLS AND HOSPITALS

1. DO YOU SERVE MEALS THAT INCLUDE FISH AND FISH PRODUCTS?
(Please check those that apply to you)

a. Fresh:___ b. Frozen:___ c. Canned:___

2. APPROXIMATELY WHAT PERCENT OF THE MEALS YOU SERVE INCLUDE FISH AND FISH PRODUCTS?

_____ %

3. WHAT IS YOUR SUPPLY SOURCE, YOUR AVERAGE AMOUNT OF MONTHLY PURCHASES (IN POUNDS), THE METHOD OF DELIVERY, AND THE FREQUENCY OF DELIVERY, FOR EACH OF THE FOLLOWING:

	Name	SOURCE City	State	Lbs. of Average Monthly Purchases	Method of Delivery	Frequency of Delivery
1. FRESH						
a. Whole						
finfish						
*b. Processed						
finfish						
**c. Prepared						
finfish						
d. Whole						
shellfish						
e. Processed						
shellfish						
f. Prepared						
shellfish						
2. FROZEN						
a. Whole						
finfish						
b. Processed						
finfish						
c. Prepared						
finfish						
d. Whole						
shellfish						
e. Processed						
shellfish						
f. Prepared						
shellfish						
3. CANNED						

* Processed includes: cleaned and filleted.

** Prepared includes: processed, cooked and/or battered, etc.

4. HOW HAVE THE FOLLOWING CHANGED FOR YOU OVER THE PAST 5 YEARS?
(Increased, Decreased, No Change)

I, D, N, C. Why? _____

- a. Total meals of fish _____
- b. Meals of fresh fish _____
- c. Meals of frozen fish _____
- d. Meals of canned fish _____

5. DO YOU EXPERIENCE ANY PARTICULAR PROBLEMS HANDLING FISH AND FISH PRODUCTS? Yes No If YES, please explain-----

- a. Fresh _____
- b. Frozen _____

6. IF THERE WAS A SHORTER DELIVERY TIME FROM YOUR SUPPLIER AFTER YOU HAVE PLACED AN ORDER, WOULD YOU USE MORE FISH AND FISH PRODUCTS?

- a. Yes: _____ b. No: _____

7. IN BUYING FRESH, FROZEN, AND CANNED FISH AND FISH PRODUCTS:

- a. How do you place an order for fresh, frozen, and canned fish?

Fresh Frozen Canned

1. Company warehouse _____
2. Supplier calls on you regularly _____
3. Contact supplier when needed _____
4. Standing order with supplier _____
5. Other _____

- b. What varieties of fish do you carry?

1. Fresh _____
2. Frozen _____
3. Canned _____

- c. Have you ever found yourself in a position where you could NOT purchase species and/or form of fish you wanted?

Yes No If YES, please explain----

1. Fresh _____
2. Frozen _____
3. Canned _____

8. DO YOU DESIGNATE SPECIFIC DAYS IN WHICH MEALS OF FISH AND FISH PRODUCTS ARE SERVED? IF SO, WHAT ARE THESE DAYS?

a. Yes: _____ Days: _____

b. No: _____

9. WHAT IS YOUR TOTAL AVERAGE MONTHLY DOLLAR SALES FOR ALL MEALS INCLUDING MEATS, FISH, ETC.?

\$ _____

DO YOU HAVE ANY ADDITIONAL COMMENTS THAT MAY BE RELEVANT TO THIS SURVEY?

PUBLIC AND INDUSTRIAL RESTAURANT SURVEY

1. DO YOU SERVE MEALS THAT INCLUDE FISH AND FISH PRODUCTS?
(Please check those that apply to you)

a. Fresh: _____ b. Frozen: _____ c. Canned: _____

2. APPROXIMATELY, WHAT PER CENT OF THE MEALS YOU SERVE INCLUDE FISH AND FISH PRODUCTS?

_____ %

3. WHAT IS YOUR SUPPLY SOURCE, YOUR AVERAGE AMOUNT OF MONTHLY PURCHASES (IN POUNDS), THE METHOD OF DELIVERY, AND THE FREQUENCY OF DELIVERY, FOR EACH OF THE FOLLOWING:

	NAME	SOURCE City	State	Lbs. of Average Monthly Purchases	Method of Delivery	Frequency of Delivery
1. FRESH						
a. Whole						
finfish						
*b. Processed						
finfish						
**c. Prepared						
finfish						
d. Whole						
shellfish						
e. Processed						
shellfish						
f. Prepared						
shellfish						
2. FROZEN						
a. Whole						
finfish						
b. Processed						
finfish						
c. Prepared						
finfish						
d. Whole						
shellfish						
e. Processed						
shellfish						
f. Prepared						
shellfish						
3. CANNED						

* Processed includes: cleaned and filleted.

** Prepared includes: processed, cooked and/or battered, etc.

4. WHAT IS YOUR APPROXIMATE PERCENTAGE MARKUP FOR EACH OF THE FOLLOWING FISH GROUPS?

- a. Fresh finfish _____% b. Fresh shellfish & seafood _____%
- c. Frozen finfish _____% d. Frozen shellfish & seafood _____%
- e. Canned _____%

5. HOW HAVE THE FOLLOWING CHANGED FOR YOU OVER THE PAST 5 YEARS?
(Increased, Decreased, No Change)

I, D, N, C. Why?

- a. Total meals of fish _____
- b. Meals of fresh fish _____
- c. Meals of frozen fish _____
- d. Meals of canned fish _____

6. APPROXIMATELY WHAT PERCENTAGE OF YOUR CUSTOMERS WHO PURCHASE MEALS THAT INCLUDE FISH AND FISH PRODUCTS INDICATE PREFERENCES FOR

- a. Fresh fish: _____% b. Frozen fish: _____% c. No preference: _____%

7. DO YOU EXPERIENCE ANY PARTICULAR PROBLEMS HANDLING FISH AND FISH PRODUCTS?

Yes No If YES, please explain---

- a. Fresh _____
- b. Frozen _____

8. DO YOU PREFER TO HANDLE FRESH OR FROZEN FISH? (Check BOTH if they apply) Please explain

- a. Fresh _____
- b. Frozen _____

9. IF THERE WAS A SHORTER DELIVERY TIME FROM YOUR SUPPLIER AFTER YOU PLACED AN ORDER, WOULD YOU USE MORE FISH AND FISH PRODUCTS?

- a. Yes _____ b. No _____

10. IN BUYING FRESH, FROZEN, AND CANNED FISH AND FISH PRODUCTS:

- a. How do you place an order for fresh, frozen, and canned product

Fresh Frozen Canned

1. Supplier calls on you regularly _____
2. You contact supplier when needed _____
3. Standing order with supplier _____
4. Chain warehouse _____
5. Other _____

10. b. What varieties of fish do you carry?

1. Fresh _____

2. Frozen _____

3. Canned _____

c. Have you ever found yourself in a position where you could NOT purchase a species and/or form of fish that you wanted?

Yes No If YES, please explain ----

1. Fresh _____

2. Frozen _____

11. WHAT TYPES OF PROMOTION DO YOU USE IN SELLING MEALS OF FISH AND SEAFOODS?

a. Fresh _____

b. Frozen _____

c. Canned _____

12. WHAT COULD BE DONE IN THE FOLLOWING AREAS TO IMPROVE THE MARKET FOR MEALS WITH FISH AND FISH PRODUCTS?

	Fresh Fish	Frozen Fish
a. Supply	_____	_____
b. Advertising	_____	_____
c. Display	_____	_____
d. Processing	_____	_____
e. Pricing	_____	_____
f. Other	_____	_____

13. WHAT IS YOUR TOTAL AVERAGE MONTHLY DOLLAR SALES FOR ALL MEALS, INCLUDING MEATS, FISH, ETC.?

\$ _____

DO YOU HAVE ANY ADDITIONAL COMMENTS THAT MAY BE RELEVANT TO THIS SURVEY?
